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A PILOT STUDY EXAMINING THE USE OF TECHNOLOGICALLY ASSISTED
PSYCHOTHERAPEUTIC INTERVENTION IN THE DELIVERY OF
THERAPY TO WOMEN WITH ANXIETY RESIDING
IN RURAL UTAH COMMUNITIES

by

Benjamin K. Farmer

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Family, Consumer, and Human Development
(Marriage and Family Therapy)

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2009

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ABSTRACT

A Pilot Study Examining the Use of Technologically Assisted Psychotherapeutic
Intervention in the Delivery of Therapy to Women with Anxiety
Residing in Rural Utah Communities

by

Benjamin K. Farmer, Master of Science

Utah State University, 2009

Major Professor: D. Kim Openshaw, Ph.D.
Department: Family, Consumer, and Human Development

The purpose of this study was to examine change in symptoms of anxiety and satisfaction experienced by participants who received acceptance and commitment therapy (ACT) by using technologically assisted psychotherapeutic interventions (TAPI). TAPI utilizes the internet as a medium to make mental health services available and accessible to people residing in rural communities. The participants in this study were women who were experiencing severe levels of anxiety and lived in a rural community. Measures were taken at three different points in the study (pretherapy, posttherapy, and 6-months posttherapy). Participants received therapy over the internet via Macromedia Breeze videoconferencing to reduce symptoms of an anxiety disorder. Seven women from rural Utah communities volunteered to participate in the study.

This study found that symptoms of anxiety were reduced immediately posttherapy and that the change was sustained 6-months posttherapy. In regards to the

satisfaction, participants indicated high levels of satisfaction with their TAPI experience.

This high level of satisfaction was maintained 6-months posttherapy.

(89 pages)

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This thesis is dedicated to those who have helped in accomplishing this project.

To my wonderful wife, Anna, and the two greatest kids in the world, Daphne and Ryker. Without you in my life, I would not have much of a reason for doing anything. Thanks for the support, encouragement, and confidence you have placed in me.

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Benjamin K. Farmer

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CHAPTER I

INTRODUCTION

Anxiety is a widely recognized psychiatric disorder that affects millions of Americans (Anxiety Disorder Association of America [ADAA], 2009). Anxiety is a disorder with a wide variety of presentations including acute traumatic stress disorder (ATSD), posttraumatic stress disorder (PTSD), generalized anxiety disorder (GAD), obsessive compulsive disorder (OCD), panic disorder, panic with and without agoraphobia, and a variety of phobias. Research suggests that when comparing men and women reporting symptoms of anxiety, women are affected twice as often as men (ADAA). This study theorizes that while prevalence of anxiety among women in urban and rural communities may be comparable, women residing in rural communities were more profoundly affected due to unavailability, inaccessibility, and unacceptability (McCabe & Macnee, 2002; Mohatt, Bradley, Adams, & Morris, 2005).

The purpose of this pilot study was to provide psychotherapy to women residing in rural communities who were experiencing an anxiety disorder and to do so through a new medium of psychotherapy referred to as technologically assisted psychotherapeutic intervention (TAPI). TAPI utilizes new technology wherein the therapist can, via the internet, provide psychotherapy to those in rural communities. Preliminary studies (Openshaw & Pfister, 2009) with women diagnosed with depression and residing in rural communities suggested that TAPI was a viable therapy delivery method. TAPI appeared to be one way of circumventing two of the three barriers faced primarily by rural residents—unavailability and inaccessibility.

Two overarching research questions guide the direction of this study, “Will women who have received mental health services for anxiety via TAPI report improvement in their symptoms posttherapy, and if so, will their reported changes continue to be reported 6-months posttherapy?” and “Will the women who received mental health services for anxiety via TAPI report being satisfied with treatment and will their level of reported satisfaction be sustained 6-months posttherapy?” It is suggested that answering these questions will build on previous research in hopes of finding a feasible alternative method of delivering mental health services to those residing in rural communities.

CHAPTER II

LITERATURE REVIEW

This literature review of relevant issues to this study will include an overview of anxiety, the impact of anxiety on individuals, the family, and the community, a theoretical framework to guide the study, the importance of client satisfaction in the delivery of psychotherapy, and issues associated with rural mental health.

Anxiety Disorders

Prevalence

According to the Anxiety Disorder Association of America (ADAA), anxiety is the most common mental illness with 18.1% of the population experiencing an anxiety disorder at some point in their lives (ADAA, 2009). The purpose of the ADAA is to disseminate information regarding the prevalence, effect, and contributing factors associated with anxiety disorders, with the focus being to increase treatment care options for those who experience anxiety. As noted in Table 1, there are many types of anxiety disorders as categorized in the Diagnostic and Statistical Manual (American Psychiatric Association [APA], 2000, pp. 393-445).

Manifestation

Anxiety, as noted in Table 1, presents in many forms with a wide variety of symptoms. When symptoms exceed coping efforts, which are most commonly found in the form of attempts at avoiding, controlling, or escaping the symptoms there tends to be an exacerbation of symptoms along with negative sequella that parallel the symptoms.

Table 1

Anxiety Disorders National Prevalence, Gender Differences, and Defining Characteristics

Anxiety disorder	National prevalence	Gender differences	Defining characteristic
Specific phobia	8.7% 19 Million (ADAA, 2009)	Women are twice as likely to experience a specific phobia (ADAA, 2009)	"Persistent fear of clearly discernable, circumscribed objects or situations" (p. 443, DSM-IV-TR)
Posttraumatic stress disorder	3.5% 7.7 Million (ADAA, 2009)	Women are more likely than men to develop PTSD (ADAA, 2009)	"Following exposure to an extreme traumatic stressor involving direct personal experience" (p. 463, DSM-IV-TR)
Generalized anxiety disorder	3.1% ~6.8 Million (ADAA, 2009)	Women are twice as likely to experience GAD (ADAA, 2009)	"Excessive anxiety and worry occurring more days than not for a period of at least 6 months, about a number of events or activities" (p. 472, DSM-IV-TR)
Panic attack	1.5%-3.5% ~6 Million (ADAA, 2009)	Women are twice as likely to experience panic attacks (ADAA, 2009)	"Discrete period of intense fear...in the absence of real danger" (p. 431, DSM-IV-TR)
Panic disorder without agoraphobia	2.7% 6 Million (ADAA, 2009)	Women are twice as likely to experience panic disorder (ADAA, 2009)	Similar to a panic attack but there is an absence of Agoraphobia. (DSM-IV-TR, 2000)
Obsessive-compulsive disorder	1.0% 2.2 Million (ADAA, 2009)	Equally Common in Men and women (ADAA, 2009)	"Recurrent obsessions or compulsions that are severe enough to be time consuming or cause marked distress" (p. 456, DSM-IV-TR)
Agoraphobia	.8 % 1.8 Million (National Institute of Mental Health [NIMH], 2009)	No data	"Anxiety about being in a situation in which escape might be difficult" (p. 432, DSM-IV-TR)
Panic disorder with agoraphobia	2.7% 6 Million: About 1 in 3 develop agoraphobia (NIMH, 2009)	No data	"Panic attacks with the presence of Agoraphobia" (p.441, DSM-IV-TR)
Agoraphobia without history of panic disorder	No data	No data	Similar to Panic Disorder with Agoraphobia "except the focus of the fear is on...panic like symptoms or limited-symptom attacks" (p. 441, DSM-IV-TR)

(table continues)

Anxiety disorder	National prevalence	Gender differences	Defining characteristic
Social phobia	6.8 % 15 Million (ADAA, 2009)	No data	“Persistent fear of social performance situations” (DSM-IV-TR, 2009)
Anxiety disorder due to a general medical condition	No data	No data	“Due to the direct physiological effects of a general medical condition” (p. 476, DSM-IV-TR)
Substance induced anxiety disorder	No data	No data	“Anxiety Symptoms that are judged to be due to the direct physiological effects of a substance” (p. 479, DSM-IV-TR)

As symptoms exacerbate, negative sequella may manifest in any one of a variety of biological, psychological, and/or social domains (Barlow, 1993; McCabe & Leas, 2008). In the biological or physiological domain it is possible to see such symptoms as increased nervousness (Barlow), cardiovascular discomfort (ADAA, 2009), and gastrointestinal problems (Hoffman, Dukes, & Wittchen, 2008). In the psychological dimension, thought, insight, and reasoning processes may become increasingly impaired (Hoffman et al.; Spagnolo, Murphy, & Librera, 2008), or the symptoms of anxiety may combine with symptoms of another disorder creating a comorbid condition (e.g., depression with anxiety; Hupert, 2009). The social dimensions affected can be activities relating to (APA, 2000; Barlow; Cougle, Resnick, & Kilpatrick, 2009); employment (Tolman et al., 2009; Waghorn, Chant, White, & Whiteford, 2005), substance abuse (Franken & Hendriks, 2001; Franken, Hendriks, Haffmans, & van der Meer, 2001), and suicide ideation and completion (Chioqueta & Stiles, 2003; Herba, Ferdinand, van der Ende, & Verhulst, 2007).

Of relevance is that as these symptoms exacerbate, they do not affect only the

individual, but rather have an extending ability to transition out from the individual to other systems the individual operates in or with. Applying a systems perspective to anxiety is particularly relevant for marriage and family therapy, which assumes that symptoms have a contextual basis and are either fostered or remediated by the very systems a person is part of.

Understanding Anxiety Within a Systems Context

In his *Ecology of Human Development*, Bronfenbrenner (1979) offered an ecological model that lends itself to understanding an interaction of environmental influences (called systems). These systems interact with the developing person, who in and of themselves is a system. Bronfenbrenner differentiates five specific systems, the microsystem, mesosystem, exosystem, macrosystem, and chronosystem, and explains the interaction between these systems as being reciprocal and dynamic (see Figure 1). Using these as a basis for understanding the interaction between systems and an individual who presents with anxiety, one example is provided to help illustrate.

Example of an Ecological Explanation of an Anxiety Disorder

Sara is a 27-year-old, married female who resides in a rural Utah community. She describes her symptoms as first beginning approximately 3 years ago, including a growing fear of being alone and/or being in a large crowd of people. She reports that she finds herself being increasingly bothered when she leaves her home, with thoughts that support her rationale for not leaving; for example, if I leave my parents will die or

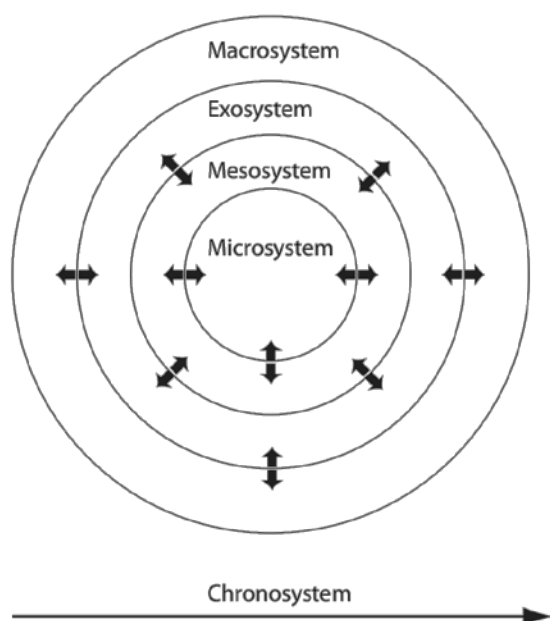


Figure 1. The ecological model showing the interaction between systems.

something terrible will happen to them. While there is no evidence that such will occur, the mere thought of leaving the home becomes distressful. As she accepts these thoughts the emotional or affective response begins to intensify. These affective sensations reciprocally reinforce the “false thoughts” which are commonly referred to as “cognitive distortions” (Burns, 1989). Mild panic results in physiological changes commensurate with anxiety (e.g., increased heart rate, feelings of nausea, and mild shaking). As Sara comes to believe that she is not able to cope effectively and the anxiety is getting worse, she may reach out to her microsystem, starting first with her family, friends, or clergy. If, in interaction she finds relief and their understanding supportive, she may be encouraged to seek out resources to help with her distress. However, if their response is less than helpful she may withdraw even more, considering herself an anomaly. She may also more deeply ingrain a rural myth such as if one lives in a rural area there is no need for

stress or anxiety, and if there were, rural residents should be able to handle it themselves (Corrigan, 2003). Consequently, she withdraws feeling increasingly isolated and abnormal. In the context of the microsystem, the individual does not find relief and has one of two options, either complete withdrawal into agoraphobia, or to reach past the microsystem to that of other systems at her disposal.

As Sarah's active isolation continues, withdrawal from school, family, peers, and religious activities affects not only this one system, but influences the nature of the mesosystem which involves relations between microsystems or connections between contexts. These are settings in which a person "actively participates" (Bronfenbrenner, 1979, p. 25). In the case of Sara, increasing presentation of agoraphobia interfered with the relationship she had with family, peers, school, and religious activities (Gregson, 2001). Sarah begins to miss work more and more (negative sequella), she does not like to be away from her husband and children and is filled with dread even thinking about their absence (symptoms). Sarah has started to refuse to fulfill responsibilities such as shopping and attending school activities (sequella). Sarah's coworkers and family notice a dramatic change and wonder what is going on, but do not really know what to do to help her (sequella). The negative sequella in the mesosystem might consist of how Sarah's actions are seen by those around her (Barlow, 1993) when influenced by anxiety. These interpretations can begin to affect how the interactions of the system are conducted and viewed (Bronfenbrenner).

Sarah's exosystem is made up of her extended family members, neighbors, and her husband's coworkers. The exosystem is made up of "one or more settings that do not involve the developing person as an active participant, but in which events occur that

affect, or are affected by what happens in the setting containing the developing person” (Bronfenbrenner, 1979, p. 25). Some of these people think she needs to “just get over it,” and start to see her differently. Sarah starts to feel stigmatized by the people around her (sequella). These feelings of stigmatization can exacerbate feelings of isolation (Spagnolo et al., 2008). These members of Sarah’s exosystem do not realize how they are contributing to the perpetuation of anxiety. In addition to interpersonal relations, social contexts are a critical aspect of daily living; that is, going to the store for food, clothing, or other essential personal or family items, or going to the school to see a play or sporting event (Barlow, 1993). While a variety of anxiety disorders (e.g., social phobias, generalized anxiety disorder and panic disorder) may interfere with one’s ability to carry out routine activities, it is the long-term impact of these disorders that constitute the negative sequella (Hoffman et al., 2008).

Sarah’s macrosystem is going to be heavily influenced by the cultural dictates of her rural community, which in turn is influenced by society as a whole (Corrigan, 2003). The macrosystem is made up of the ideologies, subcultures, and the culture as a whole that influence a person’s development (e.g., socioeconomic influences, attitudes of the culture; Ward, 2007). These cultures, subcultures, and ideologies can have the deleterious effect of further isolating Sarah because they may teach ideas such as: only weak people have mental illnesses, country life is supposed to be stress free (Corrigan; Spagnolo et al., 2008). The macrosystem consists of cultural ideologies and influences that are consistently played out or accepted by the subsystems (Bronfenbrenner, 1979). These macrosystems can be particular to specific social groups and reinforced by the daily interactions of the members of those groups (Bronfenbrenner, 2005). In this study,

the macrosystem is a rural society that has its own particular beliefs and ideas. Those members of the society who do not conform may be viewed in a stigmatizing way (Corrigan; Spangnolo et al.). This can explain why stigma associated with mental health can impact the degree to which people go about admitting the need for help and seeking that help out (McCabe & Macnee, 2002).

Bronfenbrenner (2005) added the chronosystem, to “identify the impact of prior life events and experiences, singly or sequentially, on subsequent development” (p. 83). These can be typical developmental events for the individual (e.g., graduating from school) or atypical life events (e.g., being raised in an abusive home) that would have an impact on the developing person. Sarah feels like she is failing as a young mother because ‘her mom never had these problems’ and is worried about how her fears might affect her child. In addition, having gotten married later than some of her friends she sees herself as less desirable, which her husband tells her is not true, yet she tends to see herself that way.

Typically the course of an anxiety disorder is a series of peaks (in which anxiety is experienced very intensely) and troughs (when anxiety is not as prominent) throughout a person’s life (APA, 2000). The common theme of anxiety disorders is that they rarely, if ever, resolve completely on their own without some form of intervention either chemical or behavioral (ADAA, 2009). If not treated appropriately anxiety can negatively impact a person’s life for years (ADAA).

A Second Example of Anxiety in the Ecosystem

While symptoms of any anxiety disorder are of particular concern, excessive

subjective distress tends to provoke negative sequella that interfere with day-to-day living with increasing potency as the symptoms evolve as a consequence of an individual's attempt to avoid, escape, or control them. For example, the up and coming agoraphobic who first chokes on food at Marietta's, panics as she attempts to restore her ability to breathe. Although her breathing has been restored, when she is asked to again go to Marietta's for lunch, she experiences mild distress as she remembers the incident and chooses not to return to this restaurant (e.g., somatic discomfort of the stomach, a sense of tension and tightening of the body concomitant with cognitions that provoke fear, though it may seem to be unrealistic). If, for the purpose of this example, Susan were to avoid only this restaurant, then for the most part avoidance may be an effective coping strategy. However, with anxiety, this does not appear to be the case and the generalization moves from one context to another. Over the course of time, which will vary from one person to another, if the individual is fortuitously inclined towards agoraphobia with panic, it is likely that these symptoms will generalize to other areas of life limiting her day-to-day activities, and may eventually inhibit her from even leaving her home or bedroom. As this transition proceeds, the impact moves beyond the Microsystem, affecting the influence of the Mesosystem in its regulation of interaction between the systems of the Microsystem. This imbalance reinforces the nature of the anxiety, enabling its movement into greater intensity as systems that could be supportive are interfered with. For example, being social in the school setting allows an individual to extend outside of themselves which is essential to building self-esteem, a cornerstone of security; security being contrary to anxiety.

The rippling effect of increased anxiety towards agoraphobia may be that it not

only impacts the individual (e.g., school attendance and academic progress), but its impact may extend to interfering with a parent's work experience. The parent, concerned about their child may take extra days off without pay, or perhaps the mother might have been able to take a promotion, but instead, since the promotion would require travel and time away from the family, she feels obligated to stay home and turns the promotion down. Turning the promotion down may result in conflict, overt and/or covert between the mother and daughter, or with the husband, who does not believe in anxiety. Thus, we see how anxiety starts at the level of the individual, has now rippled out from into the microsystem, and impacted the exosystem. Does it stop there? Not necessarily. Attitudes and beliefs at the level of the Macrosystem, the system that involves the culture in which we live, will either support the remediation of the anxiety or foster its ongoing evolution. Across time personally and culturally (chronosystem), the interactive nature of these systems will contribute to the anxiety disorder. As more is known about anxiety disorders and they are accepted as "true illnesses" the more other systems, pending the "lag effect," will have on fostering a healthy stance. From a sociohistorical perspective, there have been advances in understanding and treatment of anxiety disorders; however, there is much work to do when one begins to superimpose this systemic perspective onto rural America.

Living in Rural Utah: Mental Health Delivery and the Three A's

The United States is split into two categories, urban or rural as differentiated by population density relative to land mass (Mohatt et al., 2005). The New Freedom Commission on Mental Health-Subcommittee on Rural Issues (NFC-SRI, 2004) stated

that 90% of the landmass in America is made up of rural communities with more than 25% of the population residing in these communities (NFC-SRI). The Office of Management and Budget (OMB) defined an urban area: “as (1) counties with one or more urbanized area, and (2) outlying counties that are economically tied to the core counties” (Mohatt et al., p. 2). The issue at hand in regards to mental health services is the availability of those services which are predominately not there for rural residents. Of the 1,669 health professional shortage areas in the US, 85% are rural (Mohatt et al.). Not only is shortage of mental health professionals an issue, but since anxiety is more common among women than men—gender is of importance.

Women and Anxiety Disorders

Often times when women experience anxiety they feel isolated, marginalized, and/or inferior; they often get the impression that they have some deficiency because they feel or are told by society that their fears or worries are irrational, yet the individual can't seem to get rid of them (Barlow, 1993). Some research has indicated that women residing in rural communities tend to have a more difficult time dealing with anxiety and the attendant negative sequella (McCabe & Macnee, 2002). Some of the reasons for the perpetuation and exacerbation of the attendant negative sequella in rural settings is due to lack of resources and education (McCabe & Macnee). In addition, Boyd and Mackey (2000) reported that rural women were also more likely to look for maladaptive ways of dealing with anxious feelings such as alcohol and drugs. Women in rural settings tended to be disenfranchised, that is, they were deprived of the opportunity to take part in mental health services due to barriers associated with a rural residency (Openshaw & Pfister,

2009); namely, availability and accessibility (Mohatt et al., 2005). In addition, rural residents may be affected by various stigma and myths, such as being “broken,” deficient, unstable, threatening, weak, and so forth (Corrigan, 2003; McCabe & Macnee; Spangnolo et al., 2008). Myths and stigma underlie what has been referred to as the third “A,” acceptability (Mohatt et al.); in this case, unacceptability. Taking these three barriers into consideration, it appears that women residing in rural communities, while having about the same amount of anxiety as do those in urban settings, may experience the symptoms more severely and as such be more negatively impacted. To elaborate on the nature of these barriers and their implications for mental health treatment, attention is turned to a brief discussion of rural residency and how the three A’s interfere with the delivery of mental health services.

Delivery of Mental Health Services to Rural America: Recognizing and Transcending the Barriers of Availability, Accessibility, and Acceptability

Although the presentation of mental health issues is not significantly different between urban and rural contexts, the experience and outcome for those experiencing mental illness can be vastly different due to their environment (Mohatt et al., 2005; NFC-SRI, 2004). The NFC-SRI indicated in 2004 that the suicide rate in rural communities was higher than in urban settings and has been so for over the last 10 years. This may be representative of rural residents who are in need of mental health services that are either unavailable and/or inaccessible, and resort to drastic measures as a way of coping.

Availability of mental health services to rural residents. Availability refers to the potential depth and breadth of services available to mental health professionals. By

breadth we refer to a lack of certified mental health professionals in rural areas (Mohatt, et al., 2005). There are a variety of reasons for the lack of availability in rural communities. Some of these factors are ethical, economic, and/or professional. A central issue for rural mental health is the ethical issue of dual relationships (Derrig-Palumbo, 2009). Because a rural community has fewer residents it is likely that a therapist will have contact with their client in a variety of settings, be it religious, community, and/or social settings (Haug, 2009). In regards to economic factors, a therapist who works in a rural community may greatly limit their earning potential by choosing to reside in such a setting (Derrig-Palumbo). Professional development may also be limited by restricting their interactions with other therapists (Haug). Rosmann and Van Hook (1998) found that 1,600 rural communities did not have health care professionals that were accredited. An estimate from Mohatt and colleagues is that approximately two-thirds of people with mental health issues in the U.S. receive no care at all, partially due to the lack of availability. It is apparent by this information that the availability of mental health services to rural communities is lacking.

Accessibility of mental health service to rural residents. Accessibility refers to knowledge, transportation, and financing of mental health services (Lambert & Agger, 1995). Recognizing symptoms of mental illness and knowing where to access services is a fundamental requirement to receiving help. Common questions associated with accessibility are: “How do people in rural communities know when they have a mental illness that requires significant attention?”, “What would it take financially, for a rural resident to get their needs met?”, and “How is traveling a barrier to accessibility?”

In regards to knowing if there is a need for mental health services, those residing

in rural communities rely on those trained to provide this information (Hoffman et al., 2008). This is not different from that of an urban setting; the differences come in the available options to someone in an urban setting as opposed to one in a rural setting. One of the most immediate resources in a rural setting is one's primary care physician. Generally, rural residents visit their primary care physician for the somatic ailments associated with anxiety (e.g., gastrointestinal; Hoffman et al.). A primary care physician is a great resource for rural residents when there is no one else accessible. However, a cause for concern arises when the primary care physician would like to refer their patient to a specialist who has more training in the arena of mental health, and there is none available. Burman and Petrie (2008) found there was a discrepancy between diagnosis and treatment of depression and anxiety in rural settings, suggesting that primary care physicians may be ill equipped to deal with a severe mental disorder. Rost, Williams, Wherry, and Smith (1995) found that depression was detected 50% less by rural than by urban physicians. When considering that depression is highly comorbid with anxiety this finding reinforces the need for more accurate screening practices by primary care physicians. While screening is of importance, the option for a primary care physician to refer their patients to someone with more specialized mental health training is essential (Burman & Petrie).

The cost of mental health care for any client is a factor that can impede one from seeking help. Cost includes the direct cost of paying for the services of a mental health professional and the indirect cost of travel expenses, lost wages, and the possibility of paying for childcare. Here is a conservative estimate of the cost for a rural resident to seek mental health services. If a rural resident living in Roosevelt, Utah needed to travel

to Provo, Utah, their one-way mileage would be ~154 miles. That is a 3-hour drive one way. A roundtrip of this distance would be reimbursed at \$169.40 according to the current U.S. General Services Administration (2009), an average of \$100 for the therapy session, plus lost wages. If a client is making minimum wage (\$6.55 an hour; U.S. Department of Labor, 2009) and misses 6 hours of work, they are losing \$39.30. The real cost a rural resident might face in order to attend 1 hour of therapy could be close to \$300 for a 50-minute session. It is little wonder that most people in rural settings find mental health care inaccessible. Thus, it must be concluded that even if mental health services were available, if they are not accessible, then they serve no real purpose.

Acceptability of receiving mental health services. In rural America there are many different values and cultural beliefs (Mohatt et al., 2005) that can contribute to the perpetuation of myths about mental health. Some of these myths are: rural residents do not suffer from stress (Letvak, 2002); one should be able to deal with problems on their own; if you have a mental problem you are weak (Corrigan, 2003); all people who live in rural society are similar (Human & Waseman, 1991). These myths perpetuate stigma that can negatively impact people who are suffering from mental illness. This stigma is described as discrimination or being viewed as dangerous (Spagnolo et al., 2008). Stigma has been found to have deleterious effects on those seeking help for mental health issues (Corrigan). Spagnolo and colleagues cited multiple studies in which people were treated with aggression, apathy, discriminated against in matters of employment and housing, and overall were treated with derision; the result of this stigma. “The negative effects of stigma towards people with mental illness can influence all life domains, including living, learning, working, and socializing” (Spagnolo et al., p. 187). This

stigma plays out differently in each rural environment according to the differing values in those environments. Some of the similarities across rural settings that may prevent people from seeking help are lack of anonymity, fear of labeling, and feelings of isolation (Wagenfield, Murray, Mohatt, & DeBruyn, 1994).

Stigma may be the most significant barrier, yet most difficult, to circumvent in order to truly help those with mental health issues. Some suggestions for dealing with the issue of acceptability focus on using education as a tool to inform the public of the need for mental health services and the good they can foster in people who are suffering (Spagnolo et al., 2008). In a study conducted by Openshaw and Pfister (2009) dealing with depression, some of the participants referred friends or family to participate in the current study. This could be indicative of a shift in the attitude in this area towards those who participate in therapy, and indicates a level of high satisfaction with the therapy they had received.

Technologically Assisted Psychotherapeutic Intervention (TAPI):

Reaching Out to Rural America

As shown by the review of the literature there is a population in our society who are dealing with mental health issues with very few viable options to find relief. One of the ways in which rural populations may gain access to needed help is through the internet. Teletherapy, telehealth, or e-health are conceptualized as the electronic transfer of medical or health information (i.e., images, sounds, video conferencing; Kazal & Conner, 2009). Preliminary purposes in developing telehealth networks have been to reach underserved, rural, and isolated populations (Kazal & Conner). As there are

multiple ways in which teletherapy may be conducted over the Internet (i.e., e-mail, chat forum) it is important to clarify that teletherapy as conceptualized for this study is conducted via live video conferencing. By utilizing TAPI, as coined by Dr. D. Kim Openshaw, in rural communities, it is hoped that this underserved, rural population will be able to get the help that they need. TAPI is a relatively new adaptation of teletherapy (Openshaw & Pfister, 2009).

Therapy via TAPI will look very similar to traditional therapy; clients will make appointments, attend therapy sessions in a location that has the needed equipment, be in a confidential environment, and meet with the therapists face-to-face via a webcam.

Availability to Rural America

In order to circumvent the barriers associated with rural mental health delivery and make it more available, it is imperative that an efficacious and reliable technology be explored. TAPI appears to circumvent the first barrier of availability by opening a figurative window into the community. This medium may allow rural residents a wider selection of mental health professionals with whom they can meet (Kazal & Conner, 2009). Through TAPI rural residents may be given the option of finding a specialist who is familiar with particular issues and nuances of a mental health problem, which will increase the level of care they receive (McCabe & Macnee, 2002).

Accessibility to Rural America

Through TAPI, rural residents will be able to access mental health services that they otherwise could not. As discussed previously, rural residents are impeded by

distance, time, and money from seeking out needed mental health services (Hoffman et al., 2008; Lambert & Agger, 1995). Through a relatively simple Internet connection TAPI appears to enable trained and certified mental health professionals' access to rural residents in need of that help. This can enable people to get immediate help for their problems (Kazal & Conner, 2009). TAPI also circumvents the barrier of cost by allowing rural residents to avoid the secondary costs associated with traveling, sometimes hundreds of miles, to mental health centers. Local centers allow people access to needed services for more effective delivery (Kazal & Conner).

Acceptability in Rural America

As previously discussed, people experiencing mental health issues face the problem of stigma as perpetuated by societal values and myths (Corrigan, 2003; Spagnolo et al., 2008). By becoming a presence in communities, TAPI may allow people the opportunity to validate educational efforts by giving rural residents real life examples of people who have been helped by accessing mental health services via TAPI.

It is hoped that TAPI will indirectly begin to affect the level of acceptability of mental health services in rural societies. Assume that ten people have a positive outcome/experience with TAPI as the service modality. Assume further that these ten people tell two people each about their good experience receiving therapy via TAPI. These twenty people may then pass along what they have heard or may even participate in therapy via TAPI at some point. As more and more people learn about this service, it is hoped that positive treatment outcomes will influence levels of acceptability in a positive way.

Satisfaction as a Measure of Effectiveness for TAPI as a Medium of Mental Health Service Delivery

In service industries (i.e., material goods, clinical services) customer satisfaction is generally one of the highest priorities held by companies (Schwab, DiNitto, Aureala, Simmons, & Smith, 1999; Tang, Lu, & Chan, 2003). As a definition, satisfaction is: (a) an act of fulfillment; gratification, (b) the state of being satisfied; contentment (<http://dictionary.reference.com/browse/satisfaction>). In a therapeutic context, it is important for a client to feel that they received help with their problem according to the client's level of expectation (McCabe & Leas, 2008). Internet-based therapy modalities are relatively new in the mental health industry. There are a limited number of studies that have measured satisfaction through Internet based approaches. The findings of these preliminary studies suggests that teletherapy is as satisfying as face-to-face therapy (Dongier, Tempier, Lalinec-Michaud, & Meuneir, 1986; McCloskey, 1997; Norris et al., 2002; Openshaw & Pfister, 2009). TAPI is a new service delivery method and it is important to understand aspects of it that people find satisfying in order to improve mental health delivery services for the future, and increase not only recognition of the service medium, but to enhance acceptability. Based on an economic model, if people are happy with the service they will not only return, but may encourage others to seek out such services as well. Some recent studies have shown a positive correlation between high client satisfaction and positive treatment outcomes (McCabe & Leas, 2008; Trotter, 2008). Client satisfaction will be defined and measured in this study as meeting the satisfaction therapy outcome, satisfaction with the therapeutic relationship, and

satisfaction with the technology behind TAPI.

Satisfaction with Therapy Outcome

This aspect of satisfaction deals with the participants' perception of problem resolution (Jacobson & Truax, 1991). "Questions regarding the *efficacy* of psychotherapy refer to the benefits derived from it, its potency, its impact on clients, or its ability to make a difference in peoples' lives" (p. 12). In order to assess the satisfaction of this treatment or its ability to "make a difference in peoples lives" questions regarding participants overall experience will be assessed. Client self-report sampling methods are good indicators in determining levels of satisfaction in treatment outcomes (Jacobson & Truax).

Therapeutic Relationship Satisfaction: An Examination of Empathy

Therapist-client relationships have been cited as the most important factor in therapy outcomes (Heaton, 1998; Hubble, Duncan, & Miller, 1999), with higher levels of perceived empathy being correlated with higher levels of satisfaction in therapy in general. For this reason, the perceived empathy in the therapist-client relationship was examined. According to Heaton, the components of empathy were unconditional positive regard, empathic understanding, and congruence; these three components work together to help a client feel valued, understood, and that their therapist is genuinely concerned about their welfare and condition.

There are studies that have shown a positive therapist-client alliance, which is based in empathy, relates to good therapeutic outcomes (Carroll, 2005; Hubble et al.,

1999). Due to the importance that empathy plays in client satisfaction it seems reasonable to use empathy as a measure to rate a client's satisfaction with therapy using TAPI as a medium of delivery as measured by the perceived empathy in the client/therapist relationship. The focus on satisfaction in this study assumes important information is to be garnered from understanding the level of satisfaction experienced by the participants.

Satisfaction with the Technology Behind TAPI

Because TAPI is a new treatment delivery modality, it is important to assess the role the technology plays in its presentation (Openshaw & Pfister, 2009). As cited previously, there have been studies on Internet-based therapies, however few have utilized live video conferencing. The use of images and sound, adequacy of privacy, performance of the equipment, and the therapists/participants understanding of the equipment are a fundamental component in this seminal study as there is very limited information available on how these components can influence satisfaction.

Conclusion

The research questions focused on in this study relate to the alleviation of the symptoms of anxiety and the level of satisfaction with TAPI as a therapy delivery method. To reiterate, the research questions are:

1. Will women who have received mental health services for anxiety via TAPI report improvement in their symptoms posttherapy?
2. If so, will their reported changes continue to be reported 6-months posttherapy?

3. Will the women who received mental health services for anxiety via TAPI report being satisfied with treatment?

4. If so, will their level of reported satisfaction be sustained 6-months posttherapy?

In summation, residents of rural communities are limited in their accessibility, availability, and the acceptability of mental health services. It is clear that other options are needed in order to meet the mental health needs of these rural residents, and ascertain the viability of bringing treatment options to those in rural settings. TAPI is one way in which these barriers may be transcended. This study will test the effectiveness of alleviating anxiety by utilizing TAPI as a delivery method. This study is also looking at levels of satisfaction experienced by those in rural settings experiencing anxiety who have gained access to services via TAPI.

CHAPTER III

METHODS

Scope

The purpose of this pilot study was to provide women residing in rural Utah treatment for anxiety and to evaluate the effectiveness of the treatment as well as satisfaction with TAPI as the medium through which the treatment was delivered. The specific questions were: “Will women who have received mental health services for anxiety via TAPI report improvement in their symptoms posttherapy, and if so, will their reported changes continue to be reported 6-months posttherapy?”, and “Will the women who received mental health services for anxiety via TAPI report being satisfied with treatment, and will their level of reported satisfaction be sustained 6-months posttherapy?” The experimental design follows the A-B-A-A model that is typical for single-group experiments; the purpose of which is to measure change following an intervention (Vogt, 2005).

The basic research design was:

S T₁ X T₂ T₃

The symbol S represents the screening process, T₁ represents time of assessment of anxiety and other outcome dependent variables, and X represents the intervention delivered via TAPI. Posttherapy measures are represented at T₂ immediately posttherapy and T₃ representing the 6-months posttherapy measures.

Participant Screening and Selection

Seven women aged 21-55 were selected based on a diagnosis of an anxiety disorder and a score indicating a readiness for change (contemplative stage or greater). Women were recruited via advertisements disseminated through the local newspaper in a rural Utah town and selected based on appropriateness for the study. This was determined through screening interviews conducted by the principle investigator (PI) and a graduate student assistant. Participants were mailed a letter of informed consent, which was mailed back before the interview (see Appendix C).

The participants were asked to participate in the therapeutic study by attending sessions once a week for a period of about 12 weeks at a local USU Extension facility where participants had access to the Internet and a computer that was necessary for Breeze conferencing. One participant, suffering from severe agoraphobia, participated in the study from her home, and in the last several sessions attended at the local Extension office for these sessions. In one sense, therapy was conducted in the traditional therapy context, that is, appointments were scheduled, participants arrived, and sessions were conducted using acceptance and commitment therapy; however, instead of meeting face-to-face with the therapist, it was over a live web-cam via an Internet connection (see Appendix D).

Participant Selection

Measures used for intake and screening were: The Sociodemographic Inventory (SOCI-I), Beck Anxiety Inventory (BAI), Burns Anxiety Inventory (Burns AI), and the University of Rhode Island Change Assessment (URICA). The SOCI-I was used only to

gather demographic information, whereas the BAI and Burns AI were used to assess the level of anxiety, which was the primary focus of the study. The URICA was used to assess a participant's readiness for change. The deciding criteria for inclusion in the study was a BAI score indicating the presence of moderate to severe anxiety and Burns AI score indicating the presence of moderate to extreme anxiety, as differentiated by the measures. A URICA score that indicated a readiness for change that was in the range of contemplation or above was needed to be included in the study.

Mohatt and colleagues (2005) claimed a paucity of information regarding rural literature on multiple levels, one being methodological. For this reason it was decided that the inclusion of both measures of anxiety would enhance our understanding of anxiety in the context of rural Utah. Although the Burns AI differs from the BAI in that it gathers more detail in the subjective experience of each person, they have high concurrent validity with the BAI (r of .85, $p < .01$; Brittain, 2005). In addition, to adding to our understanding of these instruments in the context of rural Utah, increasingly research is including more than one measure to more accurately assess and understand the phenomenon under investigation. While there are other reasons, these were the most relevant to this pilot study.

Participant Confidentiality

Four main concerns for confidentiality were: (a) risks associated with the use of Internet technologies, (b) employees responsible for access to the equipment or technical assistance, (c) being overheard outside of the therapy room, and (d) confidentiality in supervision settings. One of the risks of using the Internet as a medium for

communication was the possibility of “eaves dropping” by third parties not associated with the study. The system used was Macromedia Breeze and was considered safe and secure (@stake, 2004). The second issue of employees who were responsible for equipment at the extension facilities maintaining confidentiality was addressed by providing a PowerPoint presentation to the employees at the USU extension facilities. These PowerPoint presentations specifically addressed issues particular to confidentiality. After viewing the presentation, employees who might have contact with participants of the study signed an agreement to maintain participant confidentiality. To mitigate the chance of a passerby overhearing the happenings in a therapy room, a sound screen was used outside of the rooms of both the therapist and participants. The sound screen is a device that provides white noise to prevent outside listeners from overhearing conversations outside of rooms or through walls. All sessions were recorded for possible reference in supervision settings. Supervision was provided on, minimally, a 1:5 ratio. Often the supervisor watched the session while they were being conducted to make certain therapeutic protocol was being followed.

Each participant was assigned a code that ensured confidentiality. No names were associated with the data collected. All records were kept in a locked filing cabinet. Only the PI and research assistants had access to this filing cabinet. The data codes enabled the PI and research assistants to compare data from the same participants across time posttreatment.

Therapist Selection and Training

The PI was the supervising therapist having two cases himself. Other therapists

included one licensed clinical social worker (LCSW) and two master's students enrolled in a marriage and family therapy program. The LCSW maintained two cases; whereas, the student therapists maintained two cases and one case, respectively. Criteria for selection of student therapists involved in the TAPI project were that they: (a) were at least in the second year of their clinical training, (b) expressed a desire to be trained in cognitive behavioral therapy (CBT) and acceptance and commitment therapy (ACT), (c) were available for supervision at a 1 hour of supervision to 5 hours of therapy ratio, (d) stayed with the study for a year, and (e) demonstrated an interest in learning how to provide therapy through the Internet.

Measures

Sociodemographic Inventory

The Sociodemographic Inventory (*SOCI-I*) was designed to collect basic demographic data in five areas: characteristics (e.g., age, gender, ethnicity), living situation (e.g., single, married, accommodation), employment/income (e.g., occupation, income level, days of work missed in past year), service delivery (e.g., inpatient/outpatient, criminal justice service), and medical history (e.g., chronic illnesses, medications).

University of Rhode Island Change Assessment

The URICA is a 32-item self-administered questionnaire addressing readiness for change (Prochaska, Norcross, & DiClemente, 1994). A 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree is used to assess the person's stage of

change based on Prochaska and colleagues' model of readiness for change. Because the N in this study is small, reliability coefficients are cited to show the strength of the URICA and its justification for use. Greenstien, Franklin, and McGuffin (1999), conducted a study, which indicated a coefficient alpha for precontemplation (0.77), contemplation (0.80), action (0.84), and maintenance (0.82) scores.

Beck Anxiety Inventory

The BAI is a 21-item measure designed to assess a person's experience of anxiety through physical and mental malaise experienced during the past month (see Appendix A for anxiety measures). Some of the symptoms described in the measure are "trembling hands," "heart pounding/racing," "fear of worst happening," "indigestion," and so forth. Questions were answered in a Likert format with 3 indicating "It bothered me a lot" and 0 indicating "I was not bothered at all." Scores could range from 0-63, with lower scores indicating lower levels of anxiety experienced. Scores are broken down as follows: 0-7: minimal level of anxiety, 8-15: mild anxiety, 16-25: moderate anxiety, and 26-63: severe anxiety (Kabacoff, Segal, Hersen, & Van Hasselt, 1997).

Psychometric properties for the BAI were first reported in 1988 when Beck, Epstein, Brown, and Steer (1988) published their findings in the development of the BAI. The test-retest reliability over a 1 week period was $r = .75$ and the Cronbach alpha was equal to 0.92. Other studies over the years have continued to show high validity and reliability of the BAI (Osman et al., 2002; Osman, Kopper, Barrios, Osman, & Wade, 1997).

Burns Anxiety Inventory

The Burns AI is a 33-item measure answered in a Likert format. Scores can range from 0-99, with lower scores indicating lower levels of anxiety. The measure is arranged in three categories that focus on (1) anxious feelings, (2) anxious thoughts, and (3) physical symptoms. Measures are indicated similarly to the BAI with a 4-point Likert scale and symptoms affecting people either “Not at all, somewhat, moderately, or A lot.” Cutoffs for levels of anxiety (Burns, 1989) are as follows; “0-4 minimal or no anxiety, 5-10 borderline anxiety, 11-20 mild anxiety, 21-30 moderate anxiety, 31-50 severe anxiety, and 51-99 extreme anxiety or panic” (p. 35).

The BAI and Burns AI were used to assess the clinical outcome of treating anxiety with ACT using TAPI as the medium for the delivery of the therapy. These measures were administered in a pretreatment assessment visit wherein the PI and a graduate student assistant oversaw their administration. Subsequent measures were mailed to the participants immediately following treatment and 6-months post-treatment. This was done in order to see if symptoms of anxiety were alleviated through ACT and if those changes would be maintained for 6-months post-treatment. Because the BAI and Burns AI are similar in structure and purpose it is assumed that they will show similar tendencies of change over the course of the study as has been shown in a previous study (Brittain, 2005).

Satisfaction Measures

Satisfaction was developed as one main concept, as clarified in the literature review, with several subscales used to assess the participant’s feelings in three main

areas. The areas of satisfaction focused on are: satisfaction with therapy, satisfaction with the therapeutic relationship, and satisfaction with the technology. As discussed in the review of the literature, satisfaction is an integral component of this study in that it may contribute to transcending the barrier of acceptability. These subscales will subsequently be delineated.

Satisfaction with Therapy

The Need Fulfillment scale is a 12-item measure that is designed to assess the client's perception of the therapist's efforts to understand the client. Items are answered in a Likert format of 1 (Not at all) to 5 (Completely) with scores ranging from 0-60. This scale was developed for a previous study (Openshaw & Pfister, 2009) in which it showed good reliability and validity. Another measure, *Satisfaction with Service* (see Appendix B) will be administered to assess participants overall experience with TAPI. Finally the participant will answer, "Overall how would you rate the quality of services you received?" The question will be answered in Likert format with 5 being "Excellent" and 0 being "Not at all satisfied."

Satisfaction with the Therapeutic Relationship

The Empathy Scale is a measure that was developed by Burns (1989) and implemented in this study to determine the client's level of satisfaction with TAPI. This is a 10-item measure answered in Likert format of 0 (I don't feel this statement is valid) to 3 (I feel this statement is valid); scores can range from 0-20. The client completed this measure in order to show the client's perception of the relationship shared with their

therapist. Two additional measures were administered; *Willingness to Refer*, and *Quality of Service* (see Appendix B) which were used to understand the client's overall satisfaction with the therapeutic relationship. Finally, participants also answered, "Overall how willing are you to recommend teletherapy to a friend?" in Likert format; 5 being "Very satisfied or Very willing to refer" to 0 "Not at all satisfied or Not at all willing to refer."

Satisfaction with the Technology

The *Quality of Equipment* is a 6-item Likert scale with a range of 0-30. Specific items asked the participants' opinion of the quality of tele-therapeutic images, sound, performance, privacy, therapist's knowledge of equipment, and participants' own understanding of the equipment. This instrument was also developed by Dr. Openshaw for the purpose of understanding the client's perception of their experience with the equipment.

Analysis and Design

This study employed the same methodology as two previous studies (Openshaw & Pfister, 2009). Formulas were developed to measure the questions of these previous studies; these same formulas were adapted for this study. In the measurement of anxiety scores were analyzed first by the mean change over time, followed by the computation of *z*-scores to determine clinical significance, and then repeated measures ANOVA were used to assess for statistical significance. Paired *t* tests were used to assess any change in the satisfaction measures over the two posttherapy time periods.

CHAPTER IV

RESULTS

Analysis of Data

Research Questions One and Two: An Examination of Clinical Outcome

In examining clinical outcome, two questions are of relevance, first, “Will women who have received mental health services for anxiety via TAPI report improvement in their symptoms posttherapy?”, and second, “Will the reported changes continue to be reported 6-months posttherapy?” To effectively answer these two questions, three statistical procedures are employed. First, mean scores relative to cut off scores were examined, pre-to posttherapy and again 6-months posttherapy. Next, the data were examined for clinical significance, which entailed calculating *z*-scores for each participant, and observing if the level of change observed posttherapy was also found 6-months posttherapy. Finally, in order to determine statistical significance an ANOVA was calculated.

An examination of the group mean scores in the BAI and Burns AI. The BAI group mean score in the pretreatment assessment of the seven participants was 33.57 (Table 2), which falls in the category of severe anxiety. The Burns AI group mean score in the pretreatment assessment was 50.57 (Table 3), which falls in the category of extreme anxiety. Individual scores ranged from 18 to 50 on the BAI and 29 to 71 on the Burns AI. In examining data from the BAI (Table 2) the pre-assessment group mean was 33.57 (severe anxiety); whereas posttherapy the group mean was 16.20 (moderate

Table 2

Level of Change in Anxiety According to the Beck Anxiety Inventory (BAI)

Variable (BAI)	<i>N</i>	Mean	<i>SD</i>
Pretreatment	7	33.57	12.05
Posttreatment	5	16.20	10.08
6-months posttreatment	6	17.67	12.69

Table 3

Level of Change in Anxiety According to the Burns Anxiety Inventory (Burns AI)

Variable (Burns AI)	<i>N</i>	Mean	<i>SD</i>
Pretreatment	7	50.57	15.27
Posttreatment	6	18.67	10.87
6-months posttreatment	5	18.40	13.08

anxiety), and 6-months posttherapy was 17.67 (moderate anxiety). While at 6-months posttherapy there was an increase of 1.47, this did not elevate the severity of anxiety reported. As noted by the mean scores, there was a change in the level of reported anxiety from severe anxiety (pretherapy) to moderate anxiety 6-months posttherapy.

The Burns AI group mean scores followed a similar trend (Table 3). The pre-assessment group mean score was 50.57 (severe anxiety); whereas posttherapy group mean scores were reduced to 18.67 (mild anxiety), and at 6-months posttherapy was 18.40 (mild anxiety). Data suggest that change occurred in the direction of lessened anxiety from preassessment through posttherapy and was sustained through 6-months posttherapy.

An examination of clinical significance. Clinical significance was determined by calculating z-scores for each participant using the Jacobson and Truax (1991) formula. The cut-off to determine if scores were clinically significant is ± 1.63 ($p > .05$). An examination of the z-scores calculated for the BAI indicates that 1 of 5 cases demonstrated clinically significant change preassessment through postassessment, but from the preassessment to 6-month post-assessment 3 of the 5 cases showed clinically significant change (Table 4). Data from the Burns AI suggested six of six participants reported clinically significant change from pre-assessment to post assessment and 3 of 5 noting such change 6-months posttherapy (Table 4). The negative scores indicate a decrease in scores over time. Dashes indicate data is not available. It should be noted that all of the scores indicated a decrease in the level of the participant's experience of anxiety; however not all reached the clinically significant level even though anxiety was lessened.

Table 4

Scores Indicating Clinical Significance

Participants	BAI pre/post z-scores	BAI pre/6-month z-scores	Burns AI pre/post z-scores	Burns AI pre/6-month z-scores
1	-.94	-1.50	-2.87	-1.91
2	-1.37	-.35	-4.06	---
3	-.65	-1.23	-3.83	-1.31
4	-.58	-1.76	-2.75	---
5	---	-1.59	---	-2.87
6	-2.60	-3.26	-4.54	-2.27
7	---	---	-2.39	-.24

An examination of statistical significance. Statistical significance was assessed through repeated-measures ANOVA. The BAI showed, over the three time periods, a within-subjects effect size indicating statistical significance was obtained with $F(1,4) = 8.36, p > .05$. The Burns AI test for within-subject effects was observed with an $F(1,6) = 44.79, p > .001$. The F -Test is used to compare the explained variance with the unexplained variance and determine if the null hypothesis is true. In both cases, the null hypothesis was rejected; data suggests the intervention produces change that is statistically significant.

*Research Questions Three and Four:
An Examination of Satisfaction with TAPI*

Research question 3 states, “Will the women who received mental health services for anxiety via TAPI report be satisfied with treatment?”, and follows up with “Will their level of reported satisfaction be sustained 6-months posttherapy?” The questions were examined from a multi-dimensional perspective that included general satisfaction with therapy, satisfaction with the therapeutic relationship, and satisfaction with the technology.

Satisfaction with therapy outcome. Satisfaction with therapy outcome was measured by a multi-item measure (NFS) and a one-item scale (i.e., satisfaction with services). These two measures have shown to be good indicators of participants overall feelings of satisfaction experienced (Openshaw & Pfister, 2009).

Examination of the Need Fulfillment Scale. Analysis of the data for the NFS indicated high levels of satisfaction immediately posttherapy with a group mean score of 59.75 (Table 5). The 6-months posttreatment mean was 55.86, this is out of a possible 60

Table 5

Change Over 6-Months Posttherapy as Measured by the Need Fulfillment Scale

Variable (NFS)	<i>N</i>	Mean	<i>SD</i>
Posttreatment	4	59.75	.500
6-months posttreatment	7	55.86	5.14

points. These scores would indicate participants overall were highly satisfied with their TAPI experience.

Satisfaction with services. This measure also corroborates the findings that participants experienced high levels of satisfaction after the course of the study (Table 6). Scores remained relatively stable 6-months posttherapy, with only a very slight drop in the mean scores indicated by participants.

Satisfaction with the therapeutic relationship. The satisfaction with the therapeutic relationship was measured by a multi-item measure (the Empathy Scale), and a one-item scale (i.e., willingness to refer, quality of services). These scales are used to assess the strength of the therapeutic relationship, which is based in empathy, and the participant's perception of that relationship.

Examination of the Empathy Scale. The group mean scores from the analysis of the *Empathy Scale* support the finding that participants experienced high levels of satisfaction in their relationship with their therapists. The group mean score was 17.83, posttreatment (Table 7) out of a possible 20 points, indicating a high level of satisfaction experienced by participants.

Willingness to refer. The *Willingness to Refer* measure (Table 8) indicated that participants experienced a high degree of satisfaction post-treatment and 6-months

posttreatment. As indicated there was no change between the posttherapy and 6-month posttherapy mean scores. This scale may be indicative of the potential of TAPI to transcend a barrier of rural mental health namely acceptability.

Quality of service. This measure asks participants to rate overall *Quality of Service* (Table 9) they experienced. Participants group mean posttherapy was 4.83 and at 6-months posttherapy participants group mean was 5 points. These scores indicate participants felt they received a high quality of service.

Satisfaction with the technology. TAPI is a newer method of psychotherapeutic intervention and as such it is critical to gain insight into the capabilities and/or problems associated with the equipment used in the study. This multi-item measure was used to give participants specific areas that either worked well or needed improvement in the delivery of mental health services via TAPI (see Appendix B).

Quality of equipment. The group mean score of 25.50 (Table 10) out of a possible 30 is indicative of participants who were satisfied with their experience using the equipment. This is promising in that the equipment functioned properly for the most part throughout the entirety of the study. This is not to say there were no technical difficulties. When there were problems (e.g., audio was not heard, pictures not displayed, difficulty logging in) they were easily resolved and not a significant distraction to therapy. As indicated by the high scores, overall participants rated the quality of equipment and its functioning consistently high.

Table 6

Change Over 6-Months Posttherapy as Measured by Satisfaction with Service Survey

Variable (Satisfaction with Service)	<i>n</i>	Mean	<i>SD</i>
Posttreatment	6	4.83	.40
6-months posttreatment	7	4.57	.53

Table 7

Change Over 6-Months Posttherapy as Measured by the Empathy Scale

Variable (Empathy Scale)	<i>N</i>	Mean	<i>SD</i>
Posttreatment	6	17.83	3.25
6-months posttreatment	7	14.57	1.13

Table 8

Change Over 6-Months Posttherapy as Measured by Willingness to Refer Survey

Variable (Willingness to refer)	<i>N</i>	Mean	<i>SD</i>
Posttreatment	6	5.0	.00
6-months posttreatment	7	5.0	.00

Table 9

Change Over 6-Months Posttherapy as Measured by Quality of Service Survey

Variable (Quality of Service)	<i>N</i>	Mean	<i>SD</i>
Posttreatment	6	4.83	.40
6-months posttreatment	7	5.00	.00

Analysis of Paired t Tests

The posttherapy mean of each measure was subtracted from the 6-month posttherapy mean and tested for significant difference (Table 11). None of the tests showed significant levels of difference in the outcomes, which lends support, that overall general satisfaction amongst the participants was high at the posttherapy measure as well as at the 6-month posttherapy measure.

Table 10

Change Over 6-Months Posttherapy as Measured by Quality of Equipment Survey

Variable (Quality of Equipment)	N	Mean	SD
Posttreatment	6	25.50	4.76
6-months posttreatment	7	26.43	4.65

Table 11

Paired Samples t Test

Pairs	Times compared	t	df	Sig. (2-tailed)
Pair 1	NFS post-NFS 6-month	1.12	3	.344
Pair 2	Empathy post -empathy 6-month	2.22	5	.077
Pair 3	Quality of Equipment post-quality equipment 6-month	.59	5	.576
Pair 4	Quality of service post-quality of service 6-month	1.00	5	.363
Pair 5	Satisfaction post-satisfaction 6-month	1.00	5	.363

CHAPTER V

DISCUSSION

Discussion of Findings

Data analyses of anxiety measures have shown that participants' anxiety lessened and may be an indication to the efficacy of providing treatment for anxiety disorders through TAPI (Openshaw & Pfister, 2009). In addition, consistent with previous research (Openshaw & Pfister) was that those who were involved in the study were satisfied with the therapy experience, their relationship with the therapist, and the medium (TAPI) through which the therapy was provided.

Discussion of Results of Questions 1 and 2

A review of the findings in this study have shown that treating anxiety through TAPI appears to be efficacious in that it reduces symptoms of anxiety at a clinically and statistically significant level. As this was the clinical outcome question posed, it is encouraging to see that those who received the services, even though the n was small, were able to be benefited through the medium of TAPI. By reducing the symptoms of those experiencing anxiety it is assumed that participants were able to feel more freedom and comfort in their day-to-day living. One of the most encouraging findings was that the decrease in anxiety was maintained 6-months posttherapy. ACT is skill oriented. It is suggested that participants were able to acquire the skills taught in session and continue the use of those skills at least 6-months posttherapy. It is suggested that if participants were to continue to use the skills, integrating them into their daily living experiences that

this would help prevent the recurrence of symptoms in the future. Further research investigating would be necessary to support this conclusion.

Internet therapy has been found to be as efficacious in recent studies (Klein, Richards, & Austin, 2006; Rochlen, Zack, & Speyer, 2004) as face-to-face therapy. Those studies differed from this study in that they were a combination of e-mail, bibliotherapy, and phone therapies. Unfortunately none of the previous research, outside that of Bischoff, Hollist, Smith, and Flack (2004), have incorporated rural residents into their efforts, at least as far as can be concluded from their research design. What this study does is replicate that of Openshaw and colleagues (2009) wherein they have suggested that TAPI is a viable method for providing therapy to those residing in rural communities. If these studies, though both are small *n* designs, suggest TAPI as credible, then perhaps issues of accessibility and availability can be transcended. These two barriers are discussed later in the discussion.

Discussion of Results of Questions 3 and 4

As discussed in the review of the literature, satisfaction with services is an important aspect of any service provider (Schwab et al., 1999; Tang et al., 2003). In this study, it is important to understand levels of satisfaction because TAPI is a new medium of services delivery and has the potential for providing a method to transcend the issues of availability, accessibility, and acceptability. Positive clinical outcome is one way to demonstrate how TAPI may be used to transcend these barriers; however, with acceptability, those involved must be sufficiently satisfied to return for other services if needed and to share their experience with those they know who may also be in need of

mental health services. While satisfaction does not completely undermine the myths and stigma associated with the receipt of mental health services, what it does do is begin at a more grassroots effort to enlighten the public about such services that can be available, accessible, and confidential. As such, an examination of satisfaction is clearly warranted. The axiom may be, “regardless of whether services are available and accessible, if they are not acceptable they most likely will not be used.”

In summarizing the results regarding participant satisfaction with their services, the therapeutic relationship, and satisfaction with TAPI, the data suggest participants experienced high levels of satisfaction, not only at the conclusion of therapy, but 6-months posttherapy as well.

Two measures actually increased over the 6-month period while other measures remained relatively the same. A trend that was interesting to note was found in both the Need Fulfillment Scale (Table 4) and the Empathy scale (Table 6) in which the participant’s perceptions changed in the 6-month posttherapy measure. The higher scores immediately posttherapy could be attributed to social pressure felt by the participants to rate their therapists in a positive light. The passage of time allowed for more “distance” from their therapists and the scores may only be a reflection of that distance.

To answer the research question, “Would people who received treatment via TAPI find it satisfying and would that satisfaction last?” the data suggests that the answer is yes. The participants of the study consistently rated their satisfaction levels as “Very satisfied” or “Extremely satisfied.” These high marks indicate the participants enjoyed their experience with TAPI. Other studies comparing client satisfaction levels between face-to-face therapies and Internet therapies found that clients had similar levels of

satisfaction with Internet based therapy (Reynolds, Stiles, & Grohol, 2006; Rochlen et al., 2004).

An Ecological Context

In an effort to bring it all back together and answer the question of, “So what does this all mean?” Bronfenbrenner’s (1979) ecological model will be revisited. Anxiety’s impact on the individual and their systems was discussed in the review of the literature within this article. In that discussion it was shown that anxiety can impact an individual (Sarah) in a variety of negative ways as evidenced by the negative sequella she experienced. Some of these negative sequella can be frustrations felt towards oneself and frustrations felt by family members (microsystem) towards the individual experiencing anxiety, limiting of social interactions (exosystem) because of fears that prevent a person from doing what they would like, being viewed stigmatically as weak, broken, or dangerous by those in the community (exosystem), physical ailments such as gastrointestinal (microsystem), and the possibility that these negative sequella can exacerbate and go on for years (chronosystem). The ecological model makes the influences experienced by individuals more apparent by identifying the separate systems.

The findings of this study are very encouraging for those rural residents of society who are experiencing a mental illness with no available and/or accessible services to be had. TAPI is one way of circumventing the barriers of rural mental health and therefore, impacting all systems in a rural environment. In an ecological context, by alleviating an individual’s experience of anxiety using TAPI as the medium of delivery, one may very well improve the quality of life for the community as a whole. Rural residents face a

unique set of barriers; TAPI seems to be able to transcend these barriers.

Implications and Conclusions

Implications for Clinical Practice

Due to the relatively new nature of this type of technology, it is not yet known the far reaching impact that TAPI can and will have on future clinical practices. In the May/June 2009 *Family Therapy Magazine*, Internet-based technologies and their use in therapy was the focus the issue. Topics that were addressed as having a positive impact on clinical work were increasing clientele (Haug, 2009), increasing accessibility (Derrig-Palumbo, 2009), and reducing health care costs (Kazal & Conner, 2009). Alternatively topics needing further investigation to facilitate clinical practice included issues of training (Openshaw, personal communication, November 2009), confidentiality, identities of the therapist and client (Derrig-Palumbo), knowledge and use of the technology by therapists and clients, diversity of clientele for the therapist if their clientele is solely based online, and risk management issues (e.g., self-harm, domestic violence; Haug).

Implications for Further Research

The Internet may increase mental health studies and interventions simply by being able to feasibly access otherwise unreachable populations. For example, this study focused on rural residents in Utah. How much more would researchers be able to learn if clients in each state in the U.S. were able to participate through an Internet connection? This would undoubtedly raise the sample size and possibly lead to the development of

more effective interventions. More effective interventions may start to lead to evidenced-based practices when working with a rural population.

Options for future research are only limited by the imagination of future researchers. Often times the application of new technologies are unknown until time has passed. Cerf (2009), who is credited with being one of the founders of the Internet, said “They say a year in the Internet business is like a dog year...equivalent to seven years in a regular person's life. In other words, it's evolving fast and faster.” One area of development is the health care industry. Based on the results of Openshaw and Pfister (2009), Openshaw and his associates are now expanding into the use of new T1 technologies (e.g., distance learning technology) and resources (extension regional campuses and hospitals) that will allow for better service delivery. By providing mental health services availability over the Internet, accessibility and hopefully, acceptability, will be exponentially increased for all people, but especially for those in a rural environment.

Implications for Social Policy

Because internet-based services have the tendency to proliferate quickly, there is generally a lag between the recognition for new policies and the introduction of guidelines for the new service. For example, the Centers for Medicare and Medicaid Systems were worried that “health care costs would increase due to improved access” (Kazal & Conner, 2009, p. 20). In this case, reimbursement practices become an issue. However, there is a trend of insurance companies being willing to reimburse for services received via the Internet (Openshaw, personal communication, November 2009). Other

areas that policy makers are concerned about have to do with liability, licensing/credentialing, and privacy/confidentiality. This becomes apparent as to how complicated an issue it can be when one considers licensure laws and the possibility of doing therapy across state lines.

TAPI and the Barriers to Rural Mental Health: The Three A's

The purpose of this study was to look at a new technology, namely TAPI, to transcend the barriers to rural mental health. As has been shown in this pilot study, the client's improvement in regards to anxiety and levels of satisfaction experienced suggest that TAPI is a viable method for the delivery of mental health services.

Availability

TAPI circumvents this issue by providing mental health professionals to residents of rural communities. TAPI may even enable rural residents the option to find specialists for their individual or relational problems/issues. A client may have an eating disorder; TAPI will enable this person to receive help from a therapist with that particular knowledge base. A couple is seeking marital therapy, however due to a spouse's need to travel for work regular meeting times are not possible. With TAPI, marital therapy may take place with spouses in different locations over Internet connections. What about a family that would benefit from a therapist who specializes in adolescents who have issues with drug abuse and would benefit from functional family therapy (FFT). TAPI is one method of transcending these barriers of availability by bringing specialists into a rural community via an Internet connection.

Accessibility

Accessibility is conceptualized by those things that might impede one from getting needed mental health services (e.g., travel time, money, knowledge of where to get help). TAPI offers convenience that would otherwise be unknown to rural communities. With TAPI, a therapist can come into rural communities, and possibly into people's homes, to deliver needed mental health services thus increasing the accessibility of mental health to rural communities.

The other significant barrier associated with accessibility is the indirect costs faced by those in rural communities. As explained previously travel and time are obstacles to those in rural areas accessing needed services. An initial setup/installation cost faced by the therapist, community, or client could be compensated in a short amount of time by allowing people to stay in their communities and utilize needed services.

Acceptability

As stated in the review of the literature, those who have sought mental health services have dealt with feelings of stigmatization as influenced by myths and cultural values (Corrigan, 2003; Spagnolo et al., 2008). The levels of satisfaction indicated in this study may suggest a favorable change in the acceptance of the use of mental health services. It is hoped that as more people are helped through TAPI, word will spread that will contribute to the breaking down of stigma surrounding mental health services. Other efforts such as education surrounding mental health issues could be employed to overcome the myths and stigma of mental illnesses (Spagnolo et al.). By reaching key people (e.g., doctors, clergy, educators, counselors) one can increase the feasibility of

TAPI in the community (Roper, 2008). Educating these key people to the potential benefits of TAPI will be beneficial in overcoming stigmas associated with mental health issues, and hopefully, acceptance may begin to increase over time.

Discussion of Limitations

For purposes of discussing potential limitations, three areas are commented on, namely sample, variation in therapy delivery, and generalizability. These limitations will be discussed sequentially.

Limitations Associated with the Sample

A sample of convenience was utilized that specifically looked for a population of women who were experiencing anxiety. The sample size is another limitation associated with this study. In a rural community in which the population is already smaller than in an urban setting, the pool of possible participants would be greatly reduced.

Variation in Therapy Delivery

Four different therapists were conducting therapy. This means there were four different perceptions, therapeutic philosophies, and interpersonal interaction styles within the study. Despite efforts to manualize treatment delivery, there was invariably some variation in the presentation among therapists. These variations in service delivery could introduce unknown confounding variables that would be difficult to isolate in a small sample size.

Limitation of Generalizability

A small n design typically means findings are not generalizable to a greater population due to the inability of the sample to meet assumptions of normality. A random sample was not used and would therefore limit generalizability to any other populations. Another limitation concerning generalizability is that of geographic area. All the participants were from the Uintah Basin, which could introduce unknown confounding variables.

Conclusion

TAPI has been shown to be effective in their alleviation of symptoms of depression (Openshaw & Pfister, 2009) and anxiety, as supported by the findings of this study. As far as overcoming the barriers associated with rural mental health, TAPI is shaping up to be a viable method of service delivery. The hope of the author is that as more research is done concerning rural mental health and TAPI is utilized more and more in that research, a specific body of information will be available regarding rural mental health and overcoming the barriers of accessibility, availability, and acceptability. By providing an equal opportunity for mental health services it is hoped that society as a whole will improve and the quality of life will be increased to all regardless of one's place of residence, be it urban or rural.

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APPENDICES

Appendix A

Beck Anxiety Inventory and Burns Anxiety Inventory

Beck Anxiety Inventory (BAI)

Below is a list of symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by the symptom during the past month, including today by checking the corresponding space in the column next to each symptom.

		Not at all	Mildly but it did not bother me much	Moderately, it was not pleasant at times	Severely, it bothered me a lot.
Item	3	0	1	2	3
1	Numbness or tingling	0	1	2	3
2	Feeling hot	0	1	2	3
3	Wobbliness in legs	0	1	2	3
4	Unable to relax	0	1	2	3
5	Fear of worst happening	0	1	2	3
6	Dizzy or light headed	0	1	2	3
7	Heart pounding/racing	0	1	2	3
8	Unsteady	0	1	2	3
9	Terrified or afraid	0	1	2	3
10	Nervous	0	1	2	3
11	Hands trembling	0	1	2	3
12	Hands trembling	0	1	2	3
13	Shaky or unsteady	0	1	2	3
14	Fear of losing control	0	1	2	3
15	Difficulty breathing	0	1	2	3
16	Fear of dying	0	1	2	3
17	Scared	0	1	2	3
18	Indigestion	0	1	2	3
19	Faint/Lightheaded	0	1	2	3
20	Face flushed	0	1	2	3
21	Hot/cold sweats	0	1	2	3
Column Sums					
Total Score					

BURNS ANXIETY INVENTORY (Burns AI)

Instructions: Circle the answer that best describes how much that symptom or problem has bothered you during the past seven (7) days.

Rating Scale: 0—Not at all, 1—Somewhat, 2—Moderately, 3—A lot

Category I: Anxious Feelings

1. Anxiety, nervousness, worry or fear.	Not at all	Somewhat	Moderately	A lot
2. Feeling that things around you are strange, unreal or foggy.	Not at all	Somewhat	Moderately	A lot
3. Feeling detached from all or part of your body.	Not at all	Somewhat	Moderately	A lot
4. Sudden, unexpected panic spells.	Not at all	Somewhat	Moderately	A lot
5. Apprehension or a sense of impending doom.	Not at all	Somewhat	Moderately	A lot
6. Tense, stressed, “Uptight” or on edge.	Not at all	Somewhat	Moderately	A lot

Category II: Anxious Thoughts

7. Difficulty concentrating	Not at all	Somewhat	Moderately	A lot
8. Racing thoughts or having your mind jump from one thing to the next.	Not at all	Somewhat	Moderately	A lot
9. Frightening fantasies or daydreams.	Not at all	Somewhat	Moderately	A lot
10. Feeling that you’re on the verge of losing control.	Not at all	Somewhat	Moderately	A lot
11. Fears of cracking up or going crazy.	Not at all	Somewhat	Moderately	A lot
12. Fears of fainting or passing out.	Not at all	Somewhat	Moderately	A lot
13. Fears of physical illness or heart attacks or dying.	Not at all	Somewhat	Moderately	A lot
14. Concerns about looking foolish or inadequate in front of others.	Not at all	Somewhat	Moderately	A lot
15. Fears of being alone, isolated or abandoned.	Not at all	Somewhat	Moderately	A lot
16. Fears of criticism or disapproval.	Not at all	Somewhat	Moderately	A lot
17. Fears that something terrible is about to happen.	Not at all	Somewhat	Moderately	A lot

Category III: Physical Symptoms

18. Skipping or racing or pounding of the heart.	Not at all	Somewhat	Moderately	A lot
19. Pain, pressure or tightness in the chest.	Not at all	Somewhat	Moderately	A lot
20. Tingling or numbness in the toes or	Not at all	Somewhat	Moderately	A lot

fingers.				
21. Butterflies or discomfort in the stomach.	Not at all	Somewhat	Moderately	A lot
22. Constipation or diarrhea.	Not at all	Somewhat	Moderately	A lot
23. Restlessness or jumpiness.	Not at all	Somewhat	Moderately	A lot
24. Tight, tense muscles.	Not at all	Somewhat	Moderately	A lot
25. Sweating not brought on by heat.	Not at all	Somewhat	Moderately	A lot
26. A lump in the throat.	Not at all	Somewhat	Moderately	A lot
27. Trembling or shaking.	Not at all	Somewhat	Moderately	A lot
28. Rubbery or “jelly” legs.	Not at all	Somewhat	Moderately	A lot
29. Feeling dizzy, light-headed or off balance.	Not at all	Somewhat	Moderately	A lot
30. Choking or smothering sensations or difficulty breathing.	Not at all	Somewhat	Moderately	A lot
31. Headaches or pains in the neck or back.	Not at all	Somewhat	Moderately	A lot
32. Hot flashes or cold chills.	Not at all	Somewhat	Moderately	A lot
33. Feeling tired, weak or easily exhausted.	Not at all	Somewhat	Moderately	A lot
<i>Column totals</i>				
<i>Total Score</i>				

Appendix B

TAPI Participant Satisfaction Survey

TAI Therapy Patient Satisfaction Survey

Was this the first teletherapy experience you have had?

~ Yes

~ No

Need Fulfillment Scale

Please answer the following questions about your therapy experience.					
Item	Not at All		Neutral	Completely	
To what extent did your therapist:	1	2	3	4	5
1. help you achieve the purpose for which you sought therapy?					
2. help you obtain skills that will help you handle future problems?					
3. demonstrate competence as a therapist?					
4. understand your needs?					
5. help you define your needs?					
6. involve you in the treatment planning (such as treatment goals and frequency of appointments.)?					
7. respond to your requests?					
8. respect your privacy and confidentiality?					
9. address issues important to you?					
10. show care and concern for you?					
11. listen and understand what you were saying?					
12. demonstrate an understanding of your diagnosis?					

Item	Poor	Fair	Good	Very Good	Excellent
Overall, how would you rate the quality of care you received during your teletherapy sessions?					

Empathy Scale

Using the scale from 0 to 3 below, rate the EXENT TO WHICH YOU FEEL EACH OF THESE STATEMENTS IS TRUE TODAY.				
0- I don't feel this statement is valid. 1- I feel this statement is somewhat valid. 2- I feel this statement is moderately valid. 3- I feel this statement is extremely valid.				
PLEASE MARK BELOW	0	1	2	3
1. I feel that I can trust my therapist.				
2. Sometimes my therapist does not seem to be completely genuine.				
3. My therapist thinks I'm worthwhile.				
4. My therapist pretends to like me more than he or she really does.				
5. My therapist is friendly and warm toward me.				
6. My therapist does not seem to care what happens to me.				
7. My therapist usually understands what I say to him or her.				
8. My therapist does not understand the way I feel inside.				
9. My therapist is sympathetic and concerned about me.				
10. My therapist sometimes acts condescending and talks down to me.				

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Overall I was felt I had a good relationship with my therapist and was comfortable during the sessions.					

Quality of Equipment

Item How satisfied were you with the:	Poor	Fair	Good	Very Good	Excellent
teletherapy images (visual images on the computer)?					
with the teletherapy sound?					
adequacy of privacy?					
performance of the equipment?					
therapists understanding of the equipment?					
your understanding of how to use the equipment?					

Item	Poor	Fair	Good	Very Good	Excellent
Overall, how would you rate the quality of services you received					

Based on your teletherapy sessions, how would you compare the quality of care you received during your teletherapy sessions to an in-person visit with a therapist?

~ I have not been in a in-person therapy setting

~ Much Better ~ Better ~ Same ~ Worse ~ Much Worse

Based on your teletherapy sessions, compared to an in-person visit with a therapy, how comfortable were you during therapy?

~ I have not been in an in person therapy setting

~ Much more comfortable ~ Slightly more comfortable ~ About the same ~ Slightly less comfortable ~ Much less comfortable

Item	Poor	Fair	Good	Very Good	Excellent
Overall, how satisfied were you with teletherapy?	1	2	3	4	5

If you have specific concerns or complaints concerning your teletherapy, please describe what you consider the three most significant to be:

1) _____

2) _____

3) _____

If there are things you felt were especially good or helpful about your teletherapy, please describe what you consider the three most significant to be:

- 1) _____
- 2) _____
- 3) _____

Item	Definitely Unwilling	Unwilling	Maybe Maybe Not	Willing	Very Willing
How willing would you to be to recommend teletherapy to a friend?					

If we could improve something that would make you more willing to refer a friend for teletherapy, what would it be?

All things considered, would you prefer to have teletherapy like that which you have just received or face-to-face therapy that would require that you travel some distance to receive it?

~ Teletherapy

~ Travel for face-to-face therapy

Please briefly explain your answer __ Sometimes its easier to open up when you are not face to face with someone

We are simply trying to get an idea of how you value teletherapy. There are no plans to use this information to charge anyone for visits. Approximately how much extra would you be willing to personally pay (out of pocket) to have local teletherapy instead of having to travel out-of-town for therapy?

~ I prefer out-of-town travel ~ \$10 ~ \$30 ~ \$ 50 ~ \$100 ~ \$200 ~ \$400 or more

My current co-pay for psychotherapy is _____

9. Please make any other comments you would like to share about your teletherapy experience on this page.

Appendix C

Letter of Informed Consent

Letter of Informed Consent

Introduction/Purpose

Professor D. Kim Openshaw, Ph.D., LCSW, LMFT in the Department of Family, Consumer, and Human Development at Utah State University is conducting a research study employing a new and innovative form of therapy referred to Technologically Assisted Intervention or TAI. While this may seem like a big name, it really means that therapy is being offered through a computer and Internet rather than you having to go to the office of the therapist. Therapy, through TAI is being offered to fifteen women, between the ages of 21 and 55, who suffer from mild to moderate symptoms of depression.

Dr. Openshaw would like to understand and learn if therapy can be provided to women who reside in rural Utah communities using this form of technology to effectively decrease symptoms of anxiety.

Procedures

If you believe that you would like to participate, the following explains what would be expected of you:

- Discuss with Dr. Openshaw the Letter of Informed Consent, Consent for Treatment, and Consent to Use Recordings for Training Purposes.
- Sign the Letter of Informed Consent, the Consent for Treatment, and if you choose, the Consent to Use the Recordings for Training Purposes.
- Meet with Dr. Openshaw and complete a pre-assessment which is to determine whether you would benefit from participation. This pre-assessment would take approximately 45 minutes of your time.
- Allow the therapists-in-training, and Dr. Openshaw to have access to your pre-assessment information so that they can discuss the results with you and work with you to develop the treatment goals and interventions.
- Allow the therapist-in-training and Dr. Openshaw to have access to your 5th session assessment information so that they can discuss your progress in therapy and continue to focus treatment goals and interventions with you.
- Allow Dr. Openshaw to supervise during your therapy sessions with your therapist. He will actually be observing the therapist as he or she is doing therapy to provide immediate feedback or feedback during supervision. This is possible for him to do so from his computer in the Breeze program.
- Read and discuss the HIPPA information that explains your right to privacy and how your information is kept confidential and when the information may be released

without your permission. This information explains how you may request this information be released. You will then sign a document to indicate that you have received a copy.

If, based on the pre-assessment, it is determined that you would benefit from the therapy to be offered, you will be asked to:

- Learn how to effectively use the TAI system for your therapy.
- Be actively involved in ten sessions of therapy (Therapy will be on a weekly basis for ten (10) weeks. The sessions will be 1.25 hours in length long. At the last session you will be asked to complete the post-assessment measures. During the first session, Dr. Openshaw will be with the therapist to introduce you to your therapist. You will have an opportunity to ask questions during this initial session. Dr. Openshaw wants to make certain that you are comfortable and all questions have been answered to your satisfaction before therapy begins. Once this has been accomplished, the therapist will begin therapy.
- Complete the study post-assessment measures at the conclusion of therapy and then again three and six months posttherapy [Approximately 45 minutes each time].

Because the study is seeking women who show mild to moderate symptoms of anxiety, if it is determined that you would not benefit from this therapy, Dr. Openshaw will refer you to your primary care physician for further consultation and possible referral.

New Findings

During the course of this study, you will be informed of any significant new findings (either good or bad), such as changes in the risks or benefits resulting from participation in the research, or new alternatives to participation that might cause you to change your mind about continuing in the study. If new information is obtained that is relevant or useful to you, or if the procedures and/or methods change at any time throughout this study, your consent to continue participating will be obtained again.

Risks

There is minimal risk in participating in this study. The most obvious risk is that the pre-assessment may suggest that you would not benefit from TAI Therapy. If this occurs, Dr. Openshaw will refer you to your primary health care provider who you will be able to consult about what would be in your best interest.

It is possible that the symptoms of anxiety may worsen during the course of therapy. If this occurs Dr. Openshaw will be involved to assess the situation and determine, in consultation with yourself, if your participation should be stopped or if you would benefit by continuing. If stopping your participation is agreed, then Dr. Openshaw will refer you to your primary health care provider to discuss what would be in your best interest.

This therapy is offered through computer and Internet; therefore, there is a slight possibility that confidentiality could be breached. Finally, this is an investigational study designed to provide therapy through computer and Internet; there is a possibility that your symptoms of anxiety may not subside.

Benefits

There may be a direct benefit to you by participating in this study. Cognitive Behavioral Therapy and Acceptance and Commitment Therapy have a proven record in helping decrease symptoms of anxiety such as those you are experiencing. In addition, your participation may contribute to the knowledge that may be helpful to others, especially concerning whether this type of therapy is a practical, convenient, and effective way to reach out to those living in remote and rural areas.

Explanation and Offer to Answer Questions

Dr. Openshaw has explained this study to you and has answered your questions. If you have other questions or research related concerns, you may reach Dr. Openshaw at 1-435-797-7434 or through email at d.k.openshaw@usu.edu

Extra Costs

There are no financial costs to you for participating in this study. The therapy that you receive will be free.

Voluntary Nature of Participation and Right to Withdraw Without Consequences

Participation in this research is voluntary. You may refuse to participate or withdraw at any time without consequence. In addition, you understand that you may be withdrawn from this study without your consent by Dr. Openshaw if your symptoms of anxiety increase to a point where a referral needs to be made to your primary care physician. If you desire, you may request that Dr. Openshaw and your therapist discuss your anxiety with your physician so that the physician can make an informed choice about how to best treat your condition. If this becomes the case, you will be asked to sign a Release of Confidential Information according to the HIPPA agreement you have been provided. You may also be withdrawn from the study if you consistently miss appointments and do not contact or work with your therapist to reschedule the appointment. While your therapist will attempt to contact you with the information you provide, you must also be responsible to stay in touch with your therapist should a situation arise where you cannot be at the appointment. Ideally, we would like a 24-hour notification but realize that emergencies will come up. If for some reason you miss an appointment and your therapist has attempted to contact you by phone without success, the therapist will write you a letter, giving you 10 days to respond. After this time if there is still no response, you will be withdrawn from the study.

Crisis Situations

In the event of a crisis you are requested to follow these guidelines:

- Contact your primary care physician and explain the nature of your emergency. If

your primary care physician is not available either

- Go immediately to the local emergency room to be evaluated by the emergency physician, or
 - Call 911 for assistance.
- Once you have been evaluated by either your primary care physician or the emergency physician, contact your therapist at the number provided you by the therapist, or contact Dr. Openshaw.
- Dr. Openshaw can be contacted by calling his office (435) 797-7434 or calling Logan Regional Hospital (435) 716-1000 and asking the operator to page him.

Confidentiality

Because confidentiality is so important to your feeling secure and comfortable, Dr. Openshaw will do the following to ensure, as much as possible, that your confidentiality will be maintained. First, the study uses Internet technology (i.e., Breeze) to provide TAI. According to experts with whom Dr. Openshaw has consulted, Breeze is safe and secure, especially if it is a meeting between two individuals—like between you and the therapist. This is because only those who have been given priority access to your session can view or hear what is going on. Dr. Openshaw, for supervision purposes, and your therapist are the only two who can participate in the session with you.

Second, in that TAI will be offered at a location where employees may know you, Dr. Openshaw will provide to these employees a presentation addressing confidentiality. Employees will be required to sign an agreement of confidentiality with Dr. Openshaw. So that you understand confidentiality, Dr. Openshaw will explain it to you and, if you would like to see it, show you the presentation he will be providing the employees. If you do know any of the employees, Dr. Openshaw would encourage that you not initiate contact with them so that you are not put in an awkward position or confidentiality is violated.

Next, if a technician is used to service equipment or be available to you should something go wrong with the equipment, the technician may have contact with you. As with the employees at the facility, the technician will be required to sign an agreement of confidentiality.

Fourth, a sound screen will be placed outside of the office area where you will be while in therapy. A sound screen is a small device that emits white noise that in turn muffles information that may “leak” through the door or wall.

Fifth, for Dr. Openshaw to direct the therapists in providing you with the best therapy possible he will ask that the therapists make recordings of each session so that he and the therapist can review the session. These recordings will be used for supervision, and with your permission, training purposes. The recordings will be destroyed at the completion

of the study unless you are willing to sign a release to allow Dr. Openshaw use of these recordings for training purposes.

In addition to these precautions, Dr. Openshaw will:

- Keep the research records confidential, consistent with federal and state regulations. No names will be associated with the data collected and only Dr. Openshaw and his research associates will have access to the data, which will be stored in a locked file cabinet.
- Code the data by replacing your name with a number so they can be matched with data from the same participant across time. When the data are received they will be separated from the clinical information and kept in a locked file cabinet.
- Share the results of the data from the initial intake, with the permission of the clients, to help the therapist-in-training and client prepare treatment goals and interventions.
- Keep the data (i.e., the actual information acquired from completing the assessment measures) for one year after the completion of the study (until July 2009) to allow time for the data to be analyzed.
- Separate the Informed Consents from the data. Informed Consents will be maintained by the PI in a separate location from the data where only the PI will have access.
- Analyze and report all results from the group data. No identifying information or individual information related to names will be used in the reports.

To best protect your confidentiality, no information regarding your therapy or involvement in the study will be released without your written consent. This includes information that may be provided to your primary care physician should your request that such be provided. If it is deemed in your best interest to see your primary care physician by your therapist or Dr. Openshaw, or should you withdraw from the study and desire information to be released, Dr. Openshaw will work with you to see that the appropriate document is completed so that any confidential information you desire for release can be done.

IRB Approval Statement

The Institutional Review Board for the protection of human participants at USU has approved this research. If you have questions or concerns you may contact the IRB at (435) 797 1821.

Copy of Consent

You have been given two copies of this Informed Consent. Please sign both copies, keeping one for your personal records and returning the other to Dr. Openshaw.

Investigator Statement

“I certify that the research study has been explained to the individual, by me or my research staff, and that the individual understands the nature and purpose, the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered.”

D. Kim Openshaw, Ph.D., LCSW, LMFT
Associate Professor, Family, Consumer & Human Development
And Marriage and Family Therapy

Date

By signing below, I agree to participate:

Client's Signature

Date

Appendix D

Outline of Sessions Using ACT with TAPI

These session outlines are taken from *Acceptance and Commitment Therapy for Anxiety Disorders: A practitioner's guide to using mindfulness, acceptance, and value-based behavior change strategies* by George Eifert & John Forsyth (2005).

Session 1 Outline (p. 116-117)

- Introductory Information
- Initial problem discussion
- Nature & Function of Normal Fear and Anxiety
 - What are fear and anxiety?
 - What is the purpose of anxiety-Is it good for anything?
 - Are anxiety and fear dangerous?
 - How Pervasive are problems with anxiety and fear?
- How has anxiety become a problem in the client's life?
- Treatment focus/goal and therapist commitment
- Acquisition of new skills through direct experience
- Centering exercise
- Rationale for experiential life enhancement exercise
 - Experiential monitoring forms
- Session Materials and handouts
 - Ratings of distress and disablement form
 - Living in Full Experience (LIFE) form
 - Daily ACT ratings form

Session 2 Outline (p. 132-133)

- Centering Exercise
- Review of daily practice
 - Review daily ACT ratings
- Review of patterns and costs of avoidance
 - Patterns and workability of avoidance
 - Costs of avoidance
 - Develop creative hopelessness
- Observing rather than reacting to anxiety
 - Acceptance of thoughts and feelings exercise
- Life enhancement exercise
 - Daily practice of acceptance of thoughts and feelings exercise
 - Continue monitoring anxiety and fear-related experiences using LIFE form.
 - Complete worksheet: What have I given up for anxiety this week?
 - Complete Daily ACT ratings form
- Session materials and handouts
 - Acceptance of thoughts and feelings instructions
 - Acceptance of thoughts and feelings practice form
 - Living in full experience (LIFE) form
 - Worksheet: What have I given up for anxiety this week?
 - Daily ACT ratings form

Session 3 Outline (p. 144-145)

- Repeat Acceptance of thoughts and feelings exercise
- Review of Daily Practice
 - Review acceptance of thoughts and feelings exercise and daily ACT ratings
- Control is the problem-Letting go is the alternative
 - Chinese finger trap exercise
 - Tug-of-War with the anxiety monster exercise
- Value-Driven behavior as an alternative to managing anxiety
 - Review LIFE form and What have I given up for anxiety this week? worksheet
 - Choosing valued directions
 - Values make the hard work worthwhile
 - What matters most in your life
 - The epitaph exercise: What do you want your life to stand for?
- Experiential Life enhancement exercises
 - Daily practice of Acceptance of thoughts and feelings exercise
 - Continue monitoring anxiety and fear-related experiences using the LIFE form
 - Complete worksheets: What have I given up for anxiety this week?
 - Complete Daily ACT ratings form
 - Complete one or two write your own epitaph exercise worksheets
- Session materials and handouts
 - Acceptance of thoughts and feelings practice form
 - Living in full experience (LIFE) form
 - Worksheet: What have I given up for anxiety this week?
 - Daily ACT ratings form
 - Write your own epitaph exercise worksheet
 - Finger traps to give to client
 - Towel for tug-of-war exercise

Session 4 Outline (p. 160-161)

- Review of daily practice
 - Review acceptance of thoughts and feelings exercise and daily ACT ratings
- Learning to accept anxiety with mindfulness
 - The nature of acceptance and mindfulness
 - Acceptance of anxiety exercise
 - Acceptance is not a clever fix for anxiety
- Controlling internal versus external events
 - The polygraph metaphor
- Exploring values
 - Making a commitment
 - Valued directions and worksheet
 - Values versus goals
- Experiential life enhancement exercises
 - Daily practice of acceptance and anxiety exercise for at least 20 min
 - Continue monitoring anxiety and fear-related experiences using LIFE form

- Complete daily ACT ratings form
- Complete valued directions worksheet
- Session Materials and handouts
 - Acceptance of anxiety exercise instructions
 - Acceptance of anxiety practice form
 - Living in full experience (LIFE) form
 - Daily ACT ratings form
 - Valued directions worksheet

Session 5 Outline (p. 178-179)

- Centering exercise
- Review of daily practice
 - Review acceptance of thoughts and feelings exercise and daily ACT ratings
- Self as context versus content
 - Playing volleyball with anxiety thoughts and feelings
 - The chessboard metaphor and exercise
 - Anxiety news radio metaphor
- Life compass-The ultimate reason for exposure
 - Review LIFE form
 - Review valued directions worksheet
 - Complete life compass
- Experiential life enhancement exercises
 - Daily practice of acceptance and anxiety exercise for at least 20 min
 - Continue monitoring anxiety and fear-related experiences using LIFE form
 - Complete daily ACT ratings form
 - Rewrite life compass based on in-session discussion
- Session Materials and handouts
 - Acceptance of anxiety practice form
 - LIFE form
 - Daily ACT ratings form
 - Life Compass form
 - Chessboard with pieces
 - Printout of anxiety news radio text

Session 6 Outline (p. 192-193)

- Centering exercise
- Review of daily practice
- Emotional willingness
 - Trying versus doing: The pen exercise
 - Willingness thermostat metaphor
- Dealing with intense feelings and thought
 - The bus driver exercise
- Exposure within ACT: FEEL exercise
 - How does traditional exposure work?
 - The context and purpose of exposure in ACT
 - Rationale for FEEL exercises: To facilitate valued living

- Determining appropriate FEEL exercises
- Types of interoceptive FEEL exercises
- Implementation of FEEL exercises
- Dealing with urges to escape during panic attacks and in OCD

FEEL exercise practice

- Daily practice of acceptance and anxiety exercise for at least 20 min
- Practice of at least one interoceptive and/or imagery exercise chosen by client for at least 30 min per day
- Continue monitoring anxiety and fear-related experiences using LIFE form
- Complete daily ACT ratings form

Session materials and handouts

- Acceptance of anxiety practice form
- LIFE form
- Daily ACT ratings form
- FEEL sensation record forms
- FEEL imagery record forms
- Weekly valued life goal activities form
- Index cards for bus driver exercise

Sessions 7-12 (220-222)

Centering exercise

Review of daily practice

Repeat FEEL exercises

- In-session exercises
- Consolidating progress through home exercises

Naturalistic value-guided behavioral activation

- Behavioral activation treatment: The core of value-guided action
- Selecting activities based on life compass
- Creating an activity hierarchy and commitment for action
- Monitoring progress and giving feedback

Dealing with barriers and avoidance

- The basic ACT value questions: Are you heading north or south?
- Defusion and mindfulness techniques
- Recognizing mind and language traps
- Eliminating safety signals and behaviors
- Problems with values
- Traveling with your fears

Dealing with setbacks through mindful acceptance and compassion

Experiential life enhancement exercises

- Practice acceptance of anxiety exercise daily for 20 min and complete practice sheet after each practice
- Daily practice of FEEL exercises
- Keep track of FEEL practice and value related activities by completing
- Weekly valued life goal activities record form each week and Goal achievement record
- Continue monitoring anxiety and fear-related experiences using LIFE form

- Complete daily ACT ratings form

- Preparing clients for the end of treatment

- Provide treatment summary

- Prepare for relapse and setbacks

- Identify high-risk situations

- Session Materials

- Acceptance of anxiety practice form

- LIFE form

- Daily ACT ratings form

- Weekly valued life goal activities form

- Goal achievement record form

- FEEL sensation record forms

- FEEL imagery record forms